

U.S. Application No. 10/014,563

REMARKS

Applicants thank the Examiner for the acknowledgement of allowable matter in claims 1-20, 22-24, 28, 29, 35, and 36. By this amendment, the objections to claims 22-24, 28, 29, 35, and 36 are obviated and the claims made allowable. For example, the matter of claim 22 has been incorporated into claim 21, the matter of original claim 21 has been incorporated into claim 27, and the hinge of claim 32 has been incorporated into claim 30.

The Examiner objected to claim 24 as lacking antecedent basis for "the at least one MEMS component." Applicants have amended claim 24 to recite --the at least one first MEMS component--, obviating the objection.

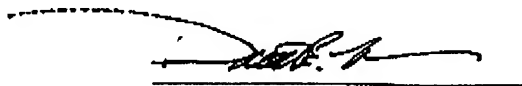
Claims 21, 27, and 30-34 were rejected under 35 U.S.C. § 102(e) as being anticipated by Motamedi *et al.*, U.S. Patent Number 5,903,380. Applicants traverse the rejection since Motamedi *et al.* does not disclose every element of the rejected claims as is required for anticipation under 35 U.S.C. § 102. For example, original claims 32 and 34 recite a hinge, whereas there is no hinge in Motamedi *et al.* The Examiner indicates instead that the actuator 18 "acts as a hinge." However, to act like a hinge, an object must permit rotation about a pivot point or line; the actuator 18 of Motamedi *et al.* does neither of these since the mirror 124 is cantilevered and bends about its attachment point, rather than pivoting about its attachment point. Thus, amended claim 30, which included the hinge of original claims 32 and 34, should be allowable over the prior art of record and the rejection can be withdrawn.

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In view of the foregoing amendments and remarks the subject application is believed to be in condition for allowance. Therefore, further consideration and allowance of the subject application is requested. If the Examiner considers personal contact advantageous to the disposition of this case, please call Applicants' Attorney, David E. Henn at (585) 423-4299, Xerox Corporation, Rochester, New York 14644, or fax him at (585) 423-5240.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

21. (AMENDED) A MEMS formation method including:

providing a SOI wafer including a single crystal silicon layer attached to an insulator layer;
forming at least one first MEMS component by patterning the single crystal silicon layer;
forming at least one second MEMS component by patterning the polysilicon; and
depositing at least one layer of polysilicon on the patterned single crystal silicon.

Claim 22 is CANCELED

24. (AMENDED) The method of claim 23 wherein the at least one first MEMS component is a mirror retained by the hinge.

27. (AMENDED) A MEMS formation method including:

providing a SOI wafer including a single crystal silicon layer attached to an insulator layer;
forming at least one first MEMS component by patterning the single crystal silicon layer;
depositing at least one layer of polysilicon on the patterned single crystal silicon; and
~~The method of claim 21 wherein forming at least one first MEMS component includes~~
forming a deflecting mirror.

30. (AMENDED) A MEMS device comprising:

at least one single crystal silicon component bonded to an insulator that rests on a handle wafer;
a polysilicon hinge derived from a layer of polysilicon applied over the at least one single crystalline component; and
at least one polysilicon component derived from a layer of polysilicon applied over the at least one single crystalline silicon component.

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31. (AMENDED) The MEMS device of claim 30 wherein the at least one single crystal silicon component comprises a deflecting mirror retained by the hinge.

32. (AMENDED) The MEMS device of claim 31 wherein the at least one polysilicon component ~~comprises a~~ is attached to and retained by the hinge ~~retaining the deflecting mirror~~.

34. (AMENDED) The MEMS device of claim 30 wherein the at least one polysilicon component ~~comprises a~~ is attached to and retained by the hinge.

35. (AMENDED) A MEMS device comprising:

at least one single crystal silicon component bonded to an insulator that rests on a handle wafer; and

at least one polysilicon component derived from a layer of polysilicon applied over the at least one single crystalline silicon component ~~The MEMS device of claim 30 further comprising:~~

a recess in the handle wafer aligned with the at least one single crystal silicon component;
and

a semiconductor light emitter mounted in the recess and oriented to emit a light beam at the single crystal silicon component.